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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,713	02/02/2004	Helmut D. Link	246472006400	5128

7590 09/06/2005

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EXAMINER

RAMANA, ANURADHA

ART UNIT PAPER NUMBER

3732

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/768,713

Applicant(s)

LINK ET AL.

Examiner

Anu Ramana

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/22/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (US 2002/0035400) in view of Kuntz (US 4,349,921).

Bryan et al. disclose a prosthesis having an upper plate 20, a lower plate 40, and a central body or core 60 connecting the upper and lower plates (Fig. 6 and paras [0082]-[0085]). Bryan et al. further disclose that the plates may have different shapes to achieve different mechanical results (para [0076]).

Bryan et al. disclose all elements of the claimed invention except for: (1) the lower plate having a flat surface; and (2) the claimed shape of the top surface of the upper endplate.

Kuntz teaches shaping the upper and lower surfaces of an intervertebral prosthesis to match the geometry of the intervertebral disc space wherein either both surfaces (i.e., upper and lower surfaces) of the prosthesis may be made convex or one may be convex and the other planar (col. 3, lines 1-15).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a lower plate in the Bryan et al. prosthesis to have planar or flat surface, as taught by Kuntz, to match the geometry of the intervertebral disc space.

Regarding claims 2 and 5, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the upper plate with the claimed shape, since it has been held that discovering an optimum value of a result

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effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 6/1, 6/2, 6/3, 6/4, 6/5, 7/1, 7/2, 7/3, 7/4, 7/5, 8/1, 8/2, 8/3, 8/4, 8/5, 9/1, 9/2, 9/3, 9/4, 9/5, 10/1, 10/2, 10/3, 10/4, 10/5, 11/1, 11/2, 11/3, 11/4, 11/5, 13/1, 13/2, 13/3, 13/4, 13/5, 14/1, 14/2, 14/3, 14/4, 14/5, 15/1, 15/2, 15/3, 15/4 and 15/5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (US 2002/0035400) and Kuntz (US 4,349,921), further in view of Michelson (US 6,517,544).

The combination of Bryan et al. and Kuntz discloses all elements of the claimed invention except for an instrument having a base plate and a milling tool mounted on the base plate wherein the axis of rotation of the milling tool is either fixed or displaceable along the base plate.

Michelson teaches an instrument for preparing an intervertebral space to receive an implantable inset including: (1) a milling tool 18; (2) a base plate 16; (3) and a drive mechanism to operate the milling tool with multiple degrees of freedom with respect to the base plate (Figs. 1, 3, 10, col. 9, lines 60-67 and col. 10, lines 1-17).

Accordingly, it would have been obvious to one of ordinary skill in the art to have utilized the instrument of Michelson, for the purpose of preparing an intervertebral space, to implant the prosthesis of the combination of Bryan et al. and Kuntz.

Claims 1-5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (US 2002/0035400) in view of Hamada (US 6,425,920).

Bryan et al. disclose a prosthesis having an upper plate 20, a lower plate 40, and a central body or core 60 connecting the upper and lower plates (Fig. 6 and paras [0082]-[0085]). Bryan et al. further disclose that the plates may have different shapes to achieve different mechanical results (para [0076]).

Bryan et al. disclose all elements of the claimed invention except for: (1) the lower plate having a flat surface; and (2) the claimed shape of the top surface of the upper endplate.

Hamada teaches providing an implant with a curved upper surface 205 and a flat lower surface 207 to better fit within the ellipsoidal space between adjacent vertebra (Figs. 18 and 19, col. 17, lines 63-67 and col. 18, lines 1-6).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a lower plate in the Bryan et al. prosthesis to have planar or flat surface, as taught by Hamada, to match the geometry of the intervertebral disc space.

Regarding claims 2 and 5, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the upper plate with the claimed shape, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 6/1, 6/2, 6/3, 6/4, 6/5, 7/1, 7/2, 7/3, 7/4, 7/5, 8/1, 8/2, 8/3, 8/4, 8/5, 9/1, 9/2, 9/3, 9/4, 9/5, 10/1, 10/2, 10/3, 10/4, 10/5, 11/1, 11/2, 11/3, 11/4, 11/5, 13/1, 13/2, 13/3, 13/4, 13/5, 14/1, 14/2, 14/3, 14/4, 14/5, 15/1, 15/2, 15/3, 15/4 and 15/5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. (US 2002/0035400) and Hamada (US 6,425,920) further in view of Michelson (US 6,517,544).

The combination of Bryan et al. and Hamada discloses all elements of the claimed invention except for an instrument having a base plate and a milling tool mounted on the base plate wherein the axis of rotation of the milling tool is either fixed or displaceable along the base plate.

Michelson teaches an instrument for preparing an intervertebral space to receive an implantable inset including: (1) a milling tool 18; (2) a base plate 16; (3) and a drive mechanism to operate the milling tool with multiple degrees of freedom with respect to the base plate (Figs. 1, 3, 10, col. 9, lines 60-67 and col. 10, lines 1-17).

It would have been obvious to one of ordinary skill in the art to have utilized the instrument of Michelson, for the purpose of preparing an intervertebral space, to implant the prosthesis of the combination of Bryan et al. and Hamada.

Conclusion

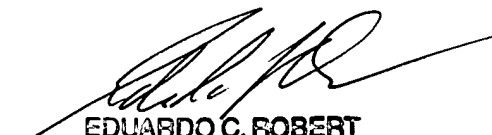
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anu Ramana whose telephone number is (571) 272-4718. The examiner can normally be reached Monday through Friday between 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached at (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AR *Anu Ramana*
August 17, 2005


EDUARDO C. ROBERT
PRIMARY EXAMINER